



FOUNDATIONS EARLY LEARNING STANDARDS	COMMON CORE STANDARDS FOR MATHEMATICS
Approaches to Learning, Emotional & Social Development, and Cognitive Development for Preschoolers	Standards for Mathematical Practice for Kindergartners
<p>Pondering, Processing, and Applying Experiences</p> <ol style="list-style-type: none"> 1. Draw on everyday experiences and apply that knowledge to other situations. 1. Seek information for further understanding. 1. Generate ideas and suggestions and make predictions. 1. Form hypotheses about cause and effect. <p>Curiosity, Information-Seeking, and Eagerness</p> <ol style="list-style-type: none"> 1. Use multiple strategies and all available sense to explore the environment. <p>Risk-Taking, Problem-Solving, and Flexibility</p> <ol style="list-style-type: none"> 1. Attempt a variety of strategies to solve problems. 1. Demonstrate resilience in the face of challenges. <p>Persistence, Attentiveness, and Responsibility</p> <ol style="list-style-type: none"> 1. Demonstrate the ability to remain engaged in an experience. 1. Work toward completion of a task despite distractions or interruptions. 1. Seek and accept help or information when needed. 1. Develop a sense of purpose and the ability to follow through. <p>Imagination, Creativity, and Invention</p> <ol style="list-style-type: none"> 1. Think more openly and creatively by comparing and contrasting solution strategies. <p>Developing a Sense of Self</p> <ol style="list-style-type: none"> 1. Demonstrate persistence with challenging activities showing a can-do attitude. 	<ol style="list-style-type: none"> 1. Make sense of problems and persevere solving them.
<p>Imagination, Creativity, and Invention</p> <ol style="list-style-type: none"> 2. Approach tasks and experiences with increasing flexibility, imagination, and inventiveness. <p>Scientific Thinking and Invention</p> <ol style="list-style-type: none"> 2. Engage in representational thought (e.g., thinking about things that are not present). 	<ol style="list-style-type: none"> 2. Reason abstractly and quantitatively.



<p>Language Development and Communication</p> <p>3. Use verbal and non-verbal language (gestures, devices, signs, and picture symbols) to communicate for multiple purposes (e.g., to express wants, needs, ideas, feelings, and to relate personal information and experiences).</p> <p>Curiosity, Information-Seeking, and Eagerness</p> <p>3. Demonstrate an eagerness and interest in learning through verbal and nonverbal means while playing, listening, questioning, and interacting.</p>	<p>3. Construct viable arguments and critique the reasoning of others.</p>
<p>Imagination, Creativity, and Invention</p> <p>4. Use or combine materials/strategies in novel ways while exploring and solving problems.</p>	<p>4. Model with mathematics.</p>
<p>Pondering, Processing, and Applying Experiences</p> <p>5. Describe or act out a memory of a situation or action.</p>	<p>5. Use appropriate tools strategically.</p>
<p>6. NA</p>	<p>7. Attend to precision.</p>
<p>7. NA</p>	<p>8. Look for and make use of structure.</p>
<p>8. NA</p>	<p>9. Look for and express regularity in repeated reasoning.</p>





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Cognitive Development for Preschoolers	Counting and Cardinality for Kindergartners
Mathematical Thinking & Expression 1. Experiment with and use numbers and counting in their play. 2. NA Language Development & Communication 3. Use a variety of writing in their play and for a variety of purposes. Mathematical Thinking & Expression 3. Experiment with and use numbers and counting in their play.	Know number names and the count sequence. K.CC.1 Count to 100 by ones and tens. K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). K.CC.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
Mathematical Thinking & Expression 4. Experiment with and use numbers and counting in their play. 5. Make and check predictions through observations and experimentation. 5. Use a variety of strategies to solve problems.	Count to tell the number of objects. K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality. <ol style="list-style-type: none"> When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. Understand that each successive number name refers to a quantity that is one larger. K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.
Mathematical Thinking & Expression 6. Understand size and volume and make comparisons (short/tall, big/small, full/empty, length, weight, height, same, more, less). 7. NA	Compare numbers. K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.



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	Operations and Algebraic Thinking for Kindergartners
NA	<p>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</p> <p>K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.</p> <p>K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.</p> <p>K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, record each decomposition by a drawing or equation (e.g., $5=2+3$ and $5=4+1$).</p> <p>K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.</p> <p>K.OA.5 Fluently add and subtract within 5.</p>

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	Number and Operations in Base Ten for Kindergartners
NA	<p>Work with numbers 11-19 to gain foundations for place value.</p> <p>K.NBT.1 Compose and decompose numbers from 11 to 19 into tens and ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18=10+8$); understand that these numbers are composed of ten ones and one, two three, four, five, six, seven, eight, or nine ones.</p>



FOUNDATIONS EARLY LEARNING STANDARDS	COMMON CORE STANDARDS FOR MATHEMATICS
Mathematical Thinking & Expression and Scientific Thinking & Invention for Preschoolers	Measurement and Data for Kindergartners
Scientific Thinking & Invention 1. Identify, discriminate, and make comparisons among objects by observing physical characteristics. Mathematical Thinking & Expression 1. Participate in activities that involve non-standard measurement. 2. Understand size and volume and make comparisons (short/tall, big/small, full/empty, length, weight, height, same, more, less).	Describe and compare measurable attributes. K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has “more of”/”less of” the attribute, and describe the difference. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i>
Mathematical Thinking & Expression 3. Sort, classify, and order objects on the basis of one or two attributes (color, shape, size, small to large, short to tall, etc.).	Classify objects and count the number of objects in each category. K.MD.3 Classify objects into given categories; count the number of objects in each category and sort the categories by count.



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Mathematical Thinking & Expression for Preschoolers	Geometry for Kindergartners
Mathematical Thinking & Expression 1. Understand and use words that identify different positions in space (e.g., in, out, under, over). 2. Recognize and describe common shapes. 3. NA	Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i> , <i>below</i> , <i>beside</i> , <i>in front of</i> , <i>behind</i> , and <i>next to</i> . K.G.2 Correctly name shapes regardless of their orientations or overall size. K.G.3 Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
Mathematical Thinking & Expression 4. Sort, classify, and order objects on the basis of one or two attributes (color, shape, size, small to large, short to tall, etc.). 5. NA 6. NA	Analyze, compare, create, and compose shapes. K.G.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length). K.G.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. K.G.6 Compose simple shapes to form larger shapes. <i>For example, “Can you join these two triangles with full sides touching to make a rectangle?”</i>

Foundations Early Learning Standards	Common Core Standards for Mathematics
Mathematical Thinking & Expression for Preschoolers	
1. Describe or demonstrate a sequence of events. 2. Recognize and duplicate simple patterns within their environment using manipulatives, art materials, body movements, etc. 3. Understand the passage of time within their daily lives (daily routines and the order of events).	1. NA 2. NA 3. NA